

Cherry Springs Star Party - June, 2025

With the Summer Solstice fast approaching, it was time to prepare for the 2025 edition of the Cherry Springs Star Party, held at Cherry Springs State Park.

The weather and smoke forecasts weren't very promising, but as this may possibly be the very last CSSP, I wasn't going to miss it, even if it rains! Additionally, we've all experienced that 'CS Magic' where the park defies the weather predictions and the skies are clear! So with cautious optimism, I planned my observing list, and loaded the camper and car for the trip.

Friday 06/13/2025:

Having finishing loading the last few food items into the fridge and hitching the camper to my SUV Thursday evening, I decided to sleep in till 8am Friday morning, and then took time to cut the lawn. LOL. There was no rush to get on the road, as I was first planning on a short drive and spending a couple of days at the ORAS Observatory and working with the C14 and its recently refurbished ASI2600 camera. Under an overcast sky, I was on the road northbound by 10am. It was an uneventful drive up I79 to the I80 interchange, where I lost close to an hour sitting in stalled traffic from a semi-truck crash. Once past the wreck, I was also slowed by road construction. Eventually, I reached my exit off of I80 and drove the few remaining miles to the site.

I arrived at the observatory at 2pm, to find Dean S already there mowing the observing field. I pulled-in and setup over by Dean S's camper. The sky had somewhat cleared and the afternoon temps was in the mid-70's and humid. It was nice being able to kick-on the camper AC. ☺



After organizing my camp, I went for a walk around the western field to check-out all the new work being done in building the club's new outdoor classroom & restroom/showers. Once the work is done later this summer, we'll have three restroom/showers on the field!



I headed up to the observatory to work inside with the C14 & camera via the ASIAir that we installed back in April. My plan was to create new Flat frames and later darks. Right off the bat, the ASIAir hit me with a firmware update which killed some time. Also ran into another issue where the power supply for some reason wasn't supplying enough voltage, only about 10.8v instead of the needed 12v. After I installed a spare that I had in my spare parts box, that corrected the ASIAir issues, I was then able to successfully create the flat frames for each filter.



After dinner, Dean and I relaxed over by his camper, and we were joined by Tim S who had dropped in to visit. The partly sunny sky had now clouded over and rain drops began to fly. Around 8:30, Dean and I walked back to the observatory and powered on the C14 & equipment and created a dark library for the camera. After that was done, we closed up the building and headed back to our campers. I stayed up till midnight reading.

Saturday 06/14/2025:

Woke to a cool rainy day. Dean and I spent most of the day cleaning out the classroom & garage in preparation for major interior construction. The garage was moving up to the new outdoor classroom and the existing indoor classroom was being expanded into the old garage space. We cleared out years of accumulated stuff!



During the work session, it rained cats-n-dogs! Wasn't looking good for observing that night. Tim S stopped back up and helped identify several items that we weren't sure about pitching. After cleaning up and having dinner, I joined Dean for beverages and snacks. We were both tired from the day's work, so it was early to bed.

Sunday 06/15/2025:

Woke early to a foggy, damp morning, and was soon stowing a few indoor items while having breakfast. By 9:30am, Dean and I were packed and ready to hit the road eastwards to Cherry Springs. It was a drizzly drive most of the way to the park, which included more road construction along I80. Still, once off the interstate and heading north past Penfield, it's always a beautifully scenic drive along Rt555 and the little town of Benezette thru Elk country. The verdant mountains were mist covered, while the streams below were flooding over their banks from the heavy rain the day before. Once I made the turn onto East Fork Road, about 15 miles from the park, the thicker clouds began to lift and rain stopped. Arrived at the park at 1pm. I headed first to the new ranger check-in station on the public field side, but it was closed so I headed over to the astronomy field and registered using the drop-box.

I was amazed to find that I had the park all to myself, a first! LOL! But that didn't last very long, as while I was setting up camp, Dean S arrived, and about an hour later Gordon M, our Canadian buddy arrived and joined us.



After greetings, I proceeded to finish getting my camp in order and then assembling my astronomy equipment. The grass was decently short, having been mowed a few days ago, and the observing field, while damp, was beginning to dry out.

Here's my usual EAA setup: 8" Celestron SCT optical tube @ f6.3 with a ZWO ASI294MC Pro camera, ZWO filter wheel & focuser, on an Atlas EQ GEM mount, along with a piggybacked Sky-Watcher EVO 50mm refractor with a ASI294MC camera (uncooled model), and a 60mm Antaries refractor guidescope with an ASI120MC camera. I also setup my AllSky cam, a ZWO ASI224MC camera & fisheye lens in a DIY dome attached to a tripod. Finally, my latest addition, a SeeStar S30 smart telescope.

In addition to the electronic astro gear, I also setup my small 80mm refractor for wide-field visual Milky-Way sweeping, hopefully later in the week. Here's my camp & scopes.



At 4pm, I phoned home, then a little past 5pm, joined Dean and Gord over at Dean's camp for snacks. Afterwards, I had a late dinner, pulled on a jacket, as the temp was down to 61 degrees, and visited a little longer with the guys, then headed indoors to read and surf. Up till a little before midnight. Never did clear up. Overnight temperature dipped into the upper 50's.

Monday 06/16/2025:

Slept in till about 8am, woken by the noise from a park crew working on the hiking trail



It was a cool misty morning, temps hovering around 58 deg. After briefly saying good morning to Gord and Dean, I spent the morning inside my warm and dry camper eating a leisurely breakfast and reading. Towards 11am, I drove down to Lyman Run park office to pickup my Galaxy Pass and hit the showers. Probably could have just soaped up and stood outside my camper as it was drizzly all day. (But that would have scared the bears,,,,)

After lunch, the three of us were planning for a drive in Dean's SUV in search of the new dark sky park being built over in Cameron County near the town of Emporium. But after receiving intel that the access road was a muddy unmaintained forest road best for 4WD trucks with high ground clearance, we bagged that idea and stayed around camp.

Earlier, Dean and Gordon had walked over to the new public area to check-out the construction work, while I was at Lyman, so after lunch, in-between the drizzle & mists, I decided to walk over and see for myself. It was impressive what the park has accomplished since last fall. The new entrances to both the public side and the overnight observing field are done. The overnight observing field entrance, now off of East Fork Road, has lots of light-shield berms, a new double gate for access onto the field, and a small parking lot off to the left side before the gate, shielded by the berms. But even with all the light shielding work, there's still a few spots where car headlights from the intersection of Rt44 & E. Fork Rd, and over in the new public parking area may sweep across the observing field as the car makes a turn. The Park is aware of these deficiencies and is planning to correct.



There's really no good way to walk across Rt44 from the observing field to the public side. The park has sealed the old entrance with a new wooden stockade fence. (I walked to the edge of the old fence and ducked between pine trees to get thru). The old public side entrance has also been closed. The new entrance to the public side is on Rt44, about 100 ft before the intersection with E. Fork Rd. In the public area, the new ranger station is completed, located beside the pit-toilet restroom. There are three large, paved parking areas with two EV charging stations, and a huge grassy field for the public to park in, also shielded from the viewing areas by large berms. On the other side of the small mountain of a berm is the new outdoor planetarium seating and a new pavilion/classroom. (The new pavilion is really nice!) In front of the pavilion and stretching down the old runway are 12 installed power pedestals spread out in 3 rows. (For reference, I counted around 21 on the overnight field). There still looks to be a bit of work still to be done, such as installing red lighting in the parking area and along the sidewalks, and new signage.



Back at camp, I visited with Dean and Gordon and the three of us discussed the new infrastructure changes at the park and how effective they will be at shielding the observing field from car lights. We also wondered how these changes will impact the starparties. I then headed indoors to read for awhile. Later that afternoon, Jim D from the Ash club stopped over to say hello. At 5pm, we met under Gordon's large canopy for snacks. In-between the drizzle, Dean grilled a pack of sausage-cheese dogs that I had brought, and the three of us enjoyed a summer picnic dinner of the dogs plus potato salad, and coleslaw, followed by ice-cream Klondike's for dessert. Just wish the outdoor temps had been more summer like, and dryer,, lol.



We stayed outside visiting until around 9:30pm when the trees began disappearing into the misty evening. I headed back indoors to read until falling asleep close to midnight. Another night of no starlight!

Tuesday 06/17/2025:

Up around 8am to another edition of morning drizzle. Earlier, before dawn, the fog was so thick that you couldn't see 5 ft ahead. We were basically inside a cloud!

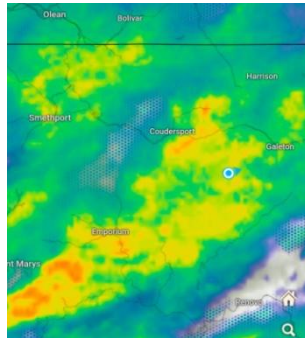
Dean S had reached his limit of chilly dampness and packed up to go home, pulling out from the park around 10am. Gordon and I spent the rest of the morning visiting, and I reorganized the empty astro-equipment containers in my car.

Checking the weather forecast, looks like we are in for one more night of wet, then starting Wednesday afternoon, drying out with possible observing late that evening. The forecast for the starparty weekend was also looking up. One of the folks camping in the next field section towards the pavilion, Bob from NY, stopped over to introduce himself and chat. Had lunch and sat under my canopy to relax. Watched the food vendor - "Out of the Box" setup in their usual location, and the park workers mow the observing field again. (I pulled back my equipment so they could get closer to the camper). And Gordon and I 'enjoyed' the misty ground-level 'clouds' rolling across the field.



I then went for a drive down to Lyman Run. Once back in camp, it was nap time. The pattering of rain on the camper roof eventually woke me after about an hour. Spent time indoors reading a magazine and surfing, along with occasionally stepping outside and visiting with Gordon. During the afternoon, several more campers rolled in and setup camp towards the southern end of the field, including Clyde from Ohio, with his clamshell tab.

Around 6:30pm, with the radar showing heavier rains approaching, I hurried to make dinner and clean-up afterwards.



Stayed inside to watch the rain while reading. Looks like it's going to be the 5th night of cloudy/rainy evenings, my clear-skies luck hasn't been very good so far this trip! Spent the evening surfing and it was an early to bed night.

Wednesday 06/18/2025:

Slept in again till 8am, when woken by the sound of rain on the camper, so rolled back over and slept for another hour. Around 10am the tent crew arrived and setup the big vendor tent and smaller registration tent. Next the porta-john folks delivered the potties and a little later the dumpster arrived. All the starparty infrastructure was coming together.



While the tents were going up, I walked over and visited with Jim D and Doug H from the ASH club. While talking with the guys, a couple of park workers stopped by to see how things were going. They shared an interesting bit of news; Elk have been spotted on the observing field! Apparently, they are moving into the area. Nice!

The weather began to improve, with the skies finally drying up and brightening. May actually see stars tonight! More amateur astronomers arrived at the park during the day, including Eric L from the LHAS club in his Tab clamshell, and Kyle in a tent. Several dozen campers now on the field.



Uncovered the scopes for a bit to let them dry out, but a passing shower forced me to quickly cover them back up. Around 1pm we had actual sunshine on the field!

Gordon and I went for a drive down to the Cherry Springs Country Store where we got ice cream and I bought a new coffee mug. Back at camp, I uncovered the Astro equipment to let things dry out in the sunshine. Gordon went for a nap while I went inside to practice for my presentation on Friday. It was warming up, at 3:30pm it was 76°, but the humidity is not too bad. The observing field was drying out nicely.

At 5:30 went for a stroll. Stopped in to say 'Hello' to both new and old acquaintances. ORAS member Chris P, Clyde & his Tab clamshell, Thorn with his dual RC's, Jim D and another Ash member, Roxanne K with the Ash club, and finally Eric L and Kyle from LHVAS:



Headed back to camp at 6pm and pulled out Monday's leftovers for Gordon & my dinner. More folks kept arriving, probably around 50+ now on the field.

Around 7pm, our beautiful weather luck began to run out. A line of ugly looking storms was moving in from the west.



Gordon and I quickly battened down the hatches, putting away what gear we could. By 7:30 lightening was seen to our NW. Gordon and I pulled out camping chairs out to watch the light show, but 15 minutes later it began to rain, so we took refuge under his large canopy. Within minutes the rain had turned into a deluge, where we could barely hear ourselves talk from the noise of the rain hitting the canopy. Little river-lets were running along the gravel roads. During that downpour we watched a couple assemble a tent across from us. Fortunately, there was no wind.



With the heavy rain finally coming to an end at 8:30pm, I headed indoors to phone home. While on the phone, the rain picked back up in intensity for another half hour. Finally, the rain died down and the clearing line began moving in from the west. But further west, about an hour out, was another line of rain, and a few hours behind that a severe looking line of thunderstorms. Don't think there's going to be much observing tonight!

Headed back outside at 9:30pm and Gordon and I watched till 11pm the occasional short live sucker hole, so we did get to see a few naked-eye stars; Arcturus, Vega, Deneb, Bootes, Corona Borealis, Hercules, Cygnus & Lyra, including the Mars-Regulus conjunction. Headed indoors to bed shortly after 11:30pm.

Thursday 06/19/2025:

Woke briefly a little before 7am and looked out the window to see clear blue, sunny skies. I later learned that the sky had started to clear around 4am, but the bright 3rd Qtr Moon washed out the Milky Way. When I finally got out of bed at a quarter after 8, it was back to overcast clouds, with a little breeze, looking like rain. Met our new tent neighbors, KC and Missy from Pa. (Also met Jim and Loraine)



Late morning the wind picked up and became gusty. Weather radar showed just a few scattered light showers to our SW.

People began flowing into the park, filling the empty spaces around us. Our section of the observing field was starting to get crowded. In addition to Carol and her son Joe setup next to Gordon, to my North was Tom from Chicago, tent camping with his wide field imaging kit. Met Frank and his 8" SCT who was setup diagonal from me.



I walked over to the vendor's tent and talked with ZWO. They're traveling around to various star parties this summer. Not selling, just demoing their stuff. Also stopped in and chatted with the Meteor Man, Dave H. Then hit the registration tent.



Shortly after lunch a shower went over soaking the field. The weather finally wore Gordon down, so he decided to bail, his telescope never having left the car trunk. A ton of folks showed up today, probably 300+ here. Walking around, I ran into Eric L, Chris P, and Roxanne and Jim working the registration tent. Gordon and I visited the food vendor for dinner, (thanks Gord!). Afterwards Gordon made his goodbyes and headed out to the great North.

A few minutes after Gordon left, a gusty storm hit the observing field dumping quite a bit of rain. I headed indoors to watch. The observing field was now back to what seems to be its natural state, soaked! I stayed in till around 7pm and went back out to sit. Around 8pm, the breeze picked back up and it began sprinkling. I folded up the chair and headed back inside the camper. Spent the evening indoors, phoning home, reading, and listening to the occasional wind gust. Stepped out at 10:30pm and 11pm and spotted a couple small sucker holes overhead, but nothing to get excited about. Went back out at midnight to find the sky once again completely overcast. Decided to call it a night.



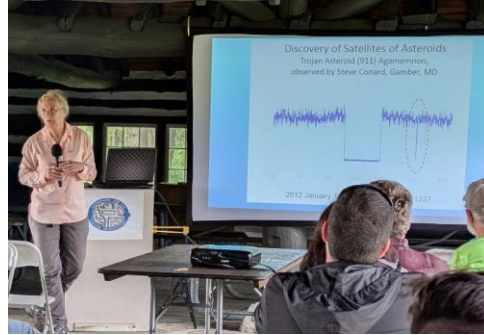
Friday 06/20/2025:

Up at 8am. The sky was still overcast and it was a cool 58° outside. Had breakfast and visited with my neighbors. By 9:30am the Sun began to break thru, a welcomed sight! Uncovered the scopes to dry out, and visited with folks in our section. Ran in to Tammy and Mark from the ORAS club, tent camping just 2 sites down from me.



More folks arrived at the park bringing the tally to probably close to 375 amateurs on the field. Dave A from the Toledo club and a regular at Calhoun setup across from me.

At 1pm I headed over to the pavilion where after opening remarks by ASH club President Jim D, I have my presentation on Galaxy Clusters. Lots of good questions afterwards. I then sat in on the talks by Eric L and Roxanne K.



Back at camp, under a beautiful sunny sky, I uncovered my scopes, then went for a walkabout around the observing field. Many good scopes were setup and uncovered, and I met folks from all over the country, from Vermont to Florida. Ran into Trina C that I met last year with her astrophotography kits. Dropped in and visited with Roxanne K and we talked doing EAA using SharpCap, and then headed over to visit Eric and the LHVAS crew. Also met a number of CloudyNights folks in my walk, along with many others.







While I was out walking, dark clouds began moving in from the NW. Headed back to camp at 6pm for dinner. Then, being optimistic that we 'might' see somewhat clear skies, I assembled my blackout tent and organized my observing notes. Bands of clouds kept moving in from the NW, so that might delay getting polar aligned for a bit.

Headed indoors at 9pm to change into heavier clothes as the temp was dropping into the low 60's. Sat outside and visited with Dave, Carol and Joe, also popped over to visit Missy and KC, and Frank, and Tom. Around 10pm, we had a brief glimpse of the dippers and Polaris, but not useful for polar aligning. Around 11pm, folks began to cover their scopes and call it a night. I decided to hold on till midnight, so I headed inside to wait it out.

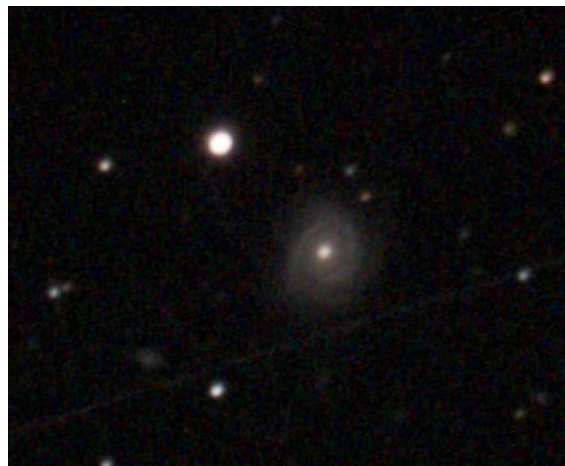
Around 12:15am, the sky began to clear above. Telescopes began to awake on the field. By 12:30am, it was clear around the Little Dipper and by 1am I was polar aligned and focused.

My first stop for the night was +12.9 mag galaxy NGC5529 and friends in Bootes. NGC5529 is a bright elongated spindle with a nice dark lane that appears distorted on one end, along with an almost star-like galactic core. There are a number of smaller galaxies in the FOV immediately surrounding NGC5529, including PGC50950, PGC50952 (face-on +15.1m spiral with a bright core), PGC2076904 (+17.1m), and the large faint glow of NGC5527 at +14.4m (also known as PGC50925). Off to the right-hand side of the frame are several other small faint galaxies.



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 180 second subs, dark & flat calibration frames, PHD guided, livestacked using SharpCap for 30 minutes).

I then slewed the telescope up and over to Corona Borealis for the face-on spiral NGC6038. The galaxy is a bit small in the FOV, but zooming in displays its multiple spiral arms surrounding its bright oval core.



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 180 second subs, dark & flat calibration frames, PHD guided, livestacked using SharpCap for 30 minutes).

While the main scope was galaxy hunting, I powered-on the little SeeStar S30, polar aligned it, and sent it off to observe a few objects. The North American Nebula - NGC7000 in Cygnus was well placed so I started there. As time was short before moonrise, I didn't attempt to do a mosaic/frame so I centered the FOV on the 'Gulf of Mexico' and let the scope accumulate subs. I then pointed the scope at the Dumbbell Nebula - M27 in Vulpecula to observe the bright Messier planetary. Here are the observations.



(SeeStar S30, 60 second exposures in EQ mode with the NB filter, darks & flats applied internally, stacked for 40 minutes / 10 minutes, then AI noise reduction applied in-app)

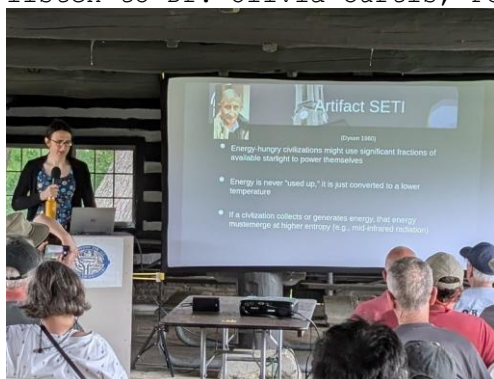
In-between EAA observing, I stepped out from under the blackout canopy and used the little 80mm Refractor to visually observe several bright Messier's: M8, M17, M20, and M11. I shared the view with Joe who was still up.

There were scattered clouds throughout the night. Temp down to 58°. The ground and equipment became moderately dewy. At Moonrise, the 28% waning crescent really illuminated the haze and clouds. With that, I called it a night at 3am

Saturday 06/21/2025:

Slept in till around 9am when the noise from other campers woke me. It was already warm inside the camper from the sunny sky, so I opened up the windows to let air in. Headed outdoors and uncovered the equipment to let them dry out. After breakfast, I walked over to where the swap meet was being held to view what the early birds were sitting out to sell. Picked up a solar filter for my 80mm Refractor. Chatted with Roxanne, Dave M, Mike M, and several others.

At 1pm, I headed over to the pavilion to drop my raffle tickets on a few door prizes and listen to Dr. Olivia Curtis, Penn State SETI Institute give her presentation on SETI.



Then killed a little time lounging back at camp until it was time for the Park and dark sky fund reports. Scott M and new manager Tracy. Also Eric L for the Dark Sky Fund.



Here's the gist of what I learned:

Once the main contract is complete, the dark sky fund will be assisting the park in light mitigation around the new parking lots. (Additional berms, fencing & trees). 150k people visited the park last year. (Combined sides).

Per Scott, the weather has kept the overall project (phase 1) from being completed, but should be soon finished. Phase 2 will be a new exit road further down Rt44. The new ranger station is not yet manned, but will be soon. No decisions yet made on starparties. The state spent 4 million on the project and wants to recoup some of that cost. They don't want people crossing the road. Not safe. Lots of discussion about the changes.

Then it was raffle time! Didn't win anything. ☹

Went to the food vendor for dinner, a loaded cheeseburger! After a phone home, I decided to begin packing away non-essential camping gear.

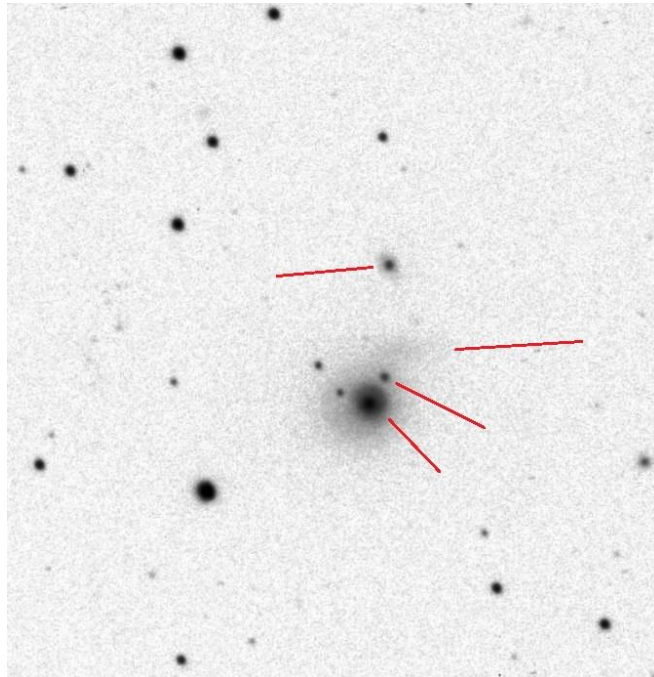
At dusk, changed into heavy clothes, but soon took off the hoodie as the temps stayed in the upper 60s. It soon was a beautiful Cherry Springs night, with the Milky Way shining!



Right off the bat, I experienced technical troubles with guiding and go-to on the 8". While I think it may have been partly caused by windy conditions which had kicked up, I may have an issue with mount stiction. Seemed to only happen in certain sections of the sky. I partly resolved the issues with the 8" by removing the dew shield and then pointing the telescope to a different portion of the sky.

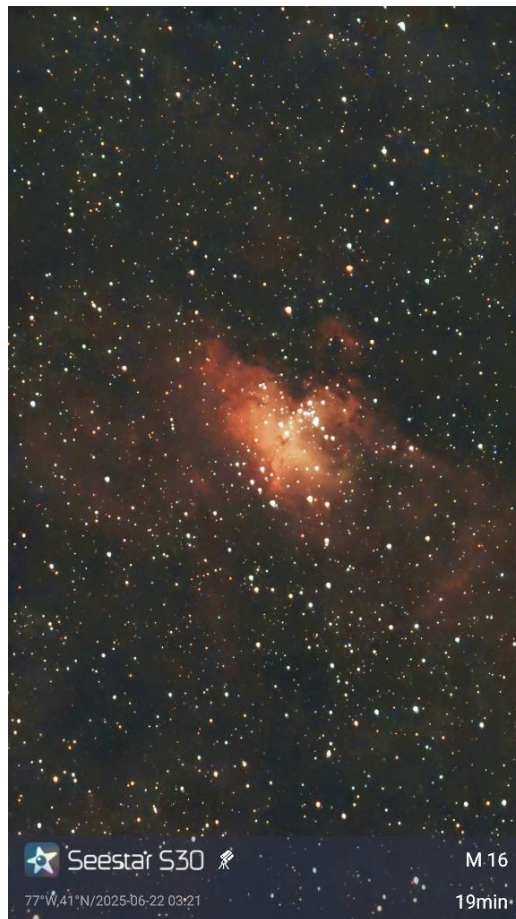
Finally went Galaxy hunting.

My first observation was the peculiar Arp galaxy NGC5614 - (Arp178) in Bootes. The spiral arms of the main galaxy (NGC5614) is perturbed by interactions with smaller galaxies NGC5615 and NGC5616. Below is the observation:



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 15 second subs, dark & flat calibration frames, PHD guided, livestacked using SharpCap for 5 minutes).

Beautiful Milky Way, sat out for awhile and just naked eye and a small monocular. Showed Carol how to use the 80mm Refractor and she had fun with that sweeping objects. Visited with Tom, Joe, and KC - Missy. While the main scope was accumulating galaxy images, I setup and polar-aligned the SeeStar to do a long mosaic of M11 and a short observation of M16 using the default FOV.



Lots of great dark and bright nebulosity in both observations.

(SeeStar S30, both 60 second exposures in EQ mode, M11 with the IR filter, livestacked for an hour & 40 minutes, M16 using the NB filter stacked for 19 minutes, then both AI noise reduction applied in-app)

I was also working in a little visual observing with the 80mm Refractor, Joe and I observed open clusters M7 and M6 in Scorpius.

I stayed out till moonrise at 3:30am illuminated the sky. Covered up the scopes and was in bed by 4am.

Here's a time-lapse from Saturday night: <https://youtu.be/4OVw8m00M3Q?si=igKqRLDraFamBH5J>

Sunday 06/22/2025:

Woken at 8:00am by sound of my neighbor's packing. After a quick breakfast, I joined in. Both Tom and Frank had already left by the time I got outside. But was able to visit with KC & Missy, and Joe & Carol, along with Tammy and Mark, and Dave. A little later, Eric and Roxanne stopped by to wish me safe travels. By 11:45am, I was hitting the road home. About a half hour out, I discovered I had a leaky tire that I had to stop several times to air back up. That kept me on edge until I pulled into home at 5:30pm.

So out of 7 nights at CS, 5 and a half were cloudy with rain on most of those. (Counting the ORAS side stop, it was 7.5 out of 9 nights cloudy/rainy). But Saturday night paid off, and I got one good night of Cherry Springs magic! Still, the odds were not in my favor this trip. Hope for better observing the next time!

Larry McHenry

Astronomical Webportal: <http://www.stellar-journeys.org/>